

What is claimed is:

1. An image reading apparatus comprising:  
a document holder on which a document is placed;  
a document positioning member, wherein the document is positioned on the document holder according to the document positioning member;  
an image reading device for reading an image of the document positioned on the document holder; and  
a correcting device for correcting an inclination of the image read by the image reading device according to an inclination of the document positioning member,  
wherein the inclination of the document positioning member is an inclination on the document holder for a primary scanning direction.

2. The image reading apparatus of claim 1 further comprising  
a memory for storing inclination information based on the inclination of the document positioning member,  
wherein the correcting device corrects the inclination of the image read by the image reading device according to the inclination information.

3. The image reading apparatus of claim 2 further comprising an inputting device for inputting the inclination information to the memory.

4. The image reading apparatus of claim 3, wherein the inputting device connects to an outside inputting device, and the inputting device receives the inclination information sent by the outside inputting device.

5. An image reading apparatus comprising:  
a document holder on which a document is placed;  
a document feeder for feeding the document in a feeding direction and stopping the document on the document holder;  
an image reading device for reading an image of the document stopped on the document holder, wherein the image reading device moves to a sub-scanning direction so as to read the image; and  
a correcting device for correcting an inclination of the image read by the image reading device according to an inclination of the feeding direction by the document feeder,  
wherein the inclination of the feeding direction is an inclination on the document holder for the sub-scanning direction.

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6. The image reading apparatus of claim 5 further comprising a memory for storing inclination information based on the inclination of the feeding direction by the document feeder, wherein the correcting device corrects the inclination of the image read by the image reading device according to the inclination information.

7. The image reading apparatus of claim 6 further comprising an inputting device for inputting the inclination information to the memory.

8. The image reading apparatus of claim 7, wherein the inputting device connects to an outside inputting device, and the inputting device receives the inclination information sent by the outside inputting device.

9. The image reading apparatus of claim 5 further comprising a document positioning member, wherein the document is positioned on the document holder according to the document positioning member,

wherein the correcting device corrects an inclination of the image read by the image reading device according to an inclination of the document positioning member when the document is positioned on the document holder without being

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fed by the document feeder, and the inclination of the document positioning member is an inclination on the document holder for a primary scanning direction, and

wherein the correcting device corrects the inclination of the image read by the image reading device according to the inclination of the feeding direction by the document feeder when the document is fed and stopped on the document holder by the document feeder.

10. The image reading apparatus of claim 9 further comprising a memory for storing first inclination information based on the inclination of the document positioning member and storing second inclination information based on the inclination of the feeding direction by the document feeder,

wherein the correcting device corrects the inclination of the image read by the image reading device according to the first inclination information when the document is positioned on the document holder without being fed by the document feeder, and the correcting device corrects the inclination of the image read by the image reading device according to the second inclination information when the document is fed and stopped on the document holder by the document feeder.

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11. The image reading apparatus of claim 10, wherein the memory comprises a first memory for storing the first inclination information and a second memory for storing the second inclination information.

12. The image reading apparatus of claim 10 further comprising an inputting device for inputting the first inclination information and the second inclination information.

13. The image reading apparatus of claim 12, wherein the inputting device connects to an outside inputting device, and the inputting device receives the inclination information sent by the outside inputting device.

14. The image reading apparatus of claim 1 further comprising a document feeder for feeding the document on the document holder and hitting the document against the document positioning member so as to position the document at a predetermined position.

15. An image forming apparatus comprising:  
a document holder on which a document is placed;

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a document positioning member, wherein the document is positioned on the document holder according to the document positioning member;

an image reading device for reading an image of the document positioned on the document holder;

a correcting device for correcting an inclination of the image read by the image reading device according to an inclination of the document positioning member,

wherein the inclination of the document positioning member is an inclination on the document holder for a primary scanning direction; and an image recording device for recording the image corrected by the correcting device on a recording material.

16. The image forming apparatus of claim 15 further comprising a calculating device for calculating the inclination of the image read by the image reading device so as to calculate the inclination of the document positioning member.

17. The image forming apparatus of claim 16, wherein the image reading device comprising:

a charge coupled device comprising a plurality of pixels along the primary scanning direction; and

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a detector for detecting the number of pixels read a test image so as to detect an inclination of the test image read by the image reading device relative to a sub-scanning direction which is perpendicular to the primary scanning direction;

wherein the calculating device calculates the inclination of the document positioning member based on the number of pixels elements detected by the detector.

18. The image forming apparatus of claim 17 further comprising a test image memory for storing a test image data indicating the test image,

wherein the test image recorded by the image recording device based on the test image data is a straight line which is perpendicular to a predetermined edge of the recording material,

and the image reading device reads the straight line of the recording material, recorded by the image recording device based on the image data, positioned on the document holder so that the predetermined edge of the recording material accords with the document positioning member.

19. The image forming apparatus of claim 17 further comprising a memory for storing inclination information

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relating to the inclination of the image calculated by the calculating device.

20. An image forming apparatus comprising:

a document holder on which a document is placed;

a document feeder for feeding the document and stopping the document on the document holder;

an image reading device for reading an image of the document stopped on the document holder, wherein the image reading device moves to a sub-scanning direction so as to read the image;

a correcting device for correcting an inclination of the image read by the image reading device according to an inclination of the feeding direction by the document feeder, wherein the inclination of the feeding direction is an inclination on the document holder for the sub-scanning direction; and

an image recording device for recording the image corrected by the correcting device on a recording material.

21. The image forming apparatus of claim 20 further comprising a calculating device for calculating the inclination of the image read by the image reading device so

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as to calculate the inclination of the feeding direction by the document feeder.

22. The image forming apparatus of claim 21, wherein the image reading device comprising:

a charge coupled device comprising a plurality of pixels along the primary scanning direction; and

a detector for detecting the number of pixels read a test image so as to detect an inclination of the test image read by the image reading device relative to the sub-scanning direction;

wherein the calculating device calculates the inclination of feeding direction by the document feeder based on the number of pixels detected by the detector.

23. The image forming apparatus of claim 22 further comprising a test image memory for storing a test image data indicating the test image,

wherein the test image recorded by the image recording device based on the test image data is a straight line which is perpendicular to a predetermined edge of the recording material,

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and the image reading device reads the straight line of the recording material recorded by the image recording device based on the test image data and fed by the document feeder.

24. The image forming apparatus of claim 22 further comprising a memory for storing inclination information relating to the inclination of the image calculated by the calculating device.

25. The image forming apparatus of claim 20 further comprising a document positioning member,

wherein the document is positioned on the document holder according to the document positioning member,

wherein the correcting device corrects an inclination of the image read by the image reading device according to an inclination of the document positioning member when the document is positioned on the document holder without being fed by the document feeder, and the inclination of the document positioning member is an inclination on the document holder for a primary scanning direction, and

wherein the correcting device corrects the inclination of the image read by the image reading device according to the inclination of the feeding direction by the document

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feeder when the document is fed and stopped on the document holder by the document feeder.

26. The image forming apparatus of claim 25 further comprising a calculating device for calculating the inclination of the image occurred according to the inclination of the document positioning member and the feeding direction by the document feeder.

27. The image forming apparatus of claim 26, wherein the image reading device comprising:

a charge coupled device comprising a plurality of pixels along the primary scanning direction; and

a detector for detecting the number of pixels read a test image so as to detect an inclination of the test image read by the image reading device relative to the sub-scanning direction;

wherein the calculating device calculates the inclination of the document positioning member and the feeding direction by the document feeder based on the number of pixels detected by the detector.

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28. The image forming apparatus of claim 27 further comprising a test image memory for storing test image data indicating the test image,

wherein the test image recorded by the image recording device based on the test image data is a straight line which is perpendicular to a predetermined edge of the recording material, and

wherein the image reading device reads the straight line of the recording material, recorded by the image recording device based on the image data, positioned on the document holder so that the predetermined edge of the recording material accords with the document positioning member, and the image reading device reads the straight line of the recording material recorded by the image recording device based on the test image data and fed by the document feeder.

29. The image forming apparatus of claim 27 further comprising:

a first memory for storing first inclination information relating to the inclination of the image according to the fixed angle of the document positioning member calculated by the calculating device; and

a second memory for storing second inclination information related to the inclination of the image according

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to the inclination of the feeding direction by the document feeder calculated by the calculating device.

30. An image reading apparatus comprising:

a document feeder for feeding a document to an image reading position;

an image reading device for reading an image of the document being fed by the document feeder at the image reading position; and

a correcting device for correcting a distortion of the image read by the image reading device.

31. The image reading apparatus of claim 30 further comprising a memory for storing distortion information based on the inclination of the feeding direction by the document feeder, wherein the correcting device corrects the distortion of the image read by the image reading device according to the distortion information.

32. The image reading apparatus of claim 31 further comprising an inputting device for inputting the distortion information to the memory.

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33. The image reading apparatus of claim 32, wherein the inputting device connects to an outside inputting device, and the inputting device receives the distortion information sent by the outside inputting device.

34. The image reading apparatus of claim 30 further comprising:

a document holder on which the document is placed; and  
a document positioning member,

wherein the document is positioned on the document holder according to the document positioning member;

wherein the correcting device corrects an inclination of the image read by the image reading device according to an inclination of the document positioning member when the document is positioned on the document holder without being fed by the document feeder, and the inclination of the document positioning member is an inclination on the document holder for a primary scanning direction; and

wherein the correcting device corrects the distortion of the image read by the image reading device according to the inclination of the feeding direction by the document feeder when the document is fed by the document feeder to the image reading position.

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